



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,069	12/21/2001	Guiping Li	01-019-A	7326
7590	11/13/2003		EXAMINER	
			HABTE, KAH SAY	
			ART UNIT	PAPER NUMBER
			1624	
DATE MAILED: 11/13/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/038,069	LI ET AL.
	Examiner Kahsay Habte, Ph. D.	Art Unit 1624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 06 October 2003.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-3,7-72,165-172,178,179 and 183-220 is/are pending in the application.

4a) Of the above claim(s) 189-210 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-3,7-72,165-172,178,179 and 183-188 is/are rejected.

7) Claim(s) 211-220 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) The translation of the foreign language provisional application has been received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

1) Notice of References Cited (PTO-892)                    4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)                    5) Notice of Informal Patent Application (PTO-152)  
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.                    6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-3, 7-72, 165-172, 178-179 and 183-220 are pending. Of the above claims, claims 189-210 are withdrawn from consideration because they are drawn to non-elected invention. It is recommended that applicants delete said claims in response to this Office Action.

***Response to Amendment***

2. Applicant's amendment filed 10/16/03 in response to the previous Office Action (Paper No. 5) is acknowledged. Rejections of claims 1-72 and 165-188 under 35 U.S.C. § 112, second paragraph (Paper No. 5, paragraphs 4a-4c) have been obviated.

***Specification***

3. The disclosure is objected to because of the following informalities:

- The chemical structures in Example 4 (page 70), Example 8 (page 73) and Examples 20-23 (pages 87-89) are defective. A bond that makes a five-membered ring is missing.
- The chemical structure in Example 32 (page 112) is defective. A bond is missing in the pyridine ring.
- The bond (Example 25, page 92) of the diazole ring is not connected well. Like wise the chemical structure in Example 27 (page 27) is defective. The single or double bond from N to CH is in the pyridine ring is not drawn properly. It is

recommended that applicants fix any defective chemical structures from the specification.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 7-72, 165-172, 178-179, and 183-188 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

a. In claim 1, the right hand side ring with variables N, Y, X<sub>1</sub> and X<sub>2</sub> is not clear.

Applicants define the ring as a 5 to 7 membered heteroaryl ring or heterocycloalkyl ring containing up to 4 heteroatoms independently selected from nitrogen, sulfur and oxygen, but it unclear how these heteroatoms constitute the ring. For example there is no variable that defines sulfur in the ring. How are the heteroatoms linked with the variables Y, X<sub>1</sub> and X<sub>2</sub>? What is the nature of the ring? Can we have a 7-membered ring with 7 nitrogens? If so, how? There are only 3 variables (i.e. variables Y, X<sub>1</sub> or X<sub>2</sub>) in the ring and that can be nitrogen, carbon or CH in case of X<sub>1</sub> and X<sub>2</sub> and Y is defined as N, O, C, CH, CH<sub>2</sub>, or absent. How can one have a 5-7 membered ring with nitrogen in the ring and the three variables (i.e. Y, X<sub>1</sub> and X<sub>2</sub>)? What else is in the ring that would make the ring a six- or seven-membered? When variable Y is absent (X<sub>1</sub> and X<sub>2</sub>

Art Unit: 1624

present with the N), what else is present in the ring to make a 5-7 membered ring? For example, if Y = -CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>- a six-membered ring can be formed, or like wise if X<sub>1</sub> or X<sub>2</sub> = -N-CH<sub>2</sub>-, or X<sub>2</sub> = -O-CH<sub>2</sub>- a 5-membered ring can be formed. It is recommended that applicants recite the specific rings, as was done in claims 13, 35, 63, 68, and 183 to overcome the rejection.

b. In claim 3, the phrase "X<sub>3</sub> and X<sub>4</sub> are independently selected..." is not clear.

There are no definitions for variables X<sub>3</sub> or X<sub>4</sub> in claim 1 when Y is absent. Claim 3 is broader than claim 1 in scope.

#### ***Allowable Subject Matter***

5. Claims 211-220 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kahsay Habte, Ph. D. whose telephone number is (703) 308-4717. The examiner can normally be reached on M-F (9.00AM- 5:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mukund Shah can be reached on 703-308-4716. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4556.

Application/Control Number: 10/038,069  
Art Unit: 1624

Page 5

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

Kahsay Habte, Ph. D.  
Examiner  
Art Unit 1624

KH  
November 11, 2003

*Mukund J. Shah*  
Mukund J. Shah  
Supervisory Patent Examiner  
Art Unit 1624